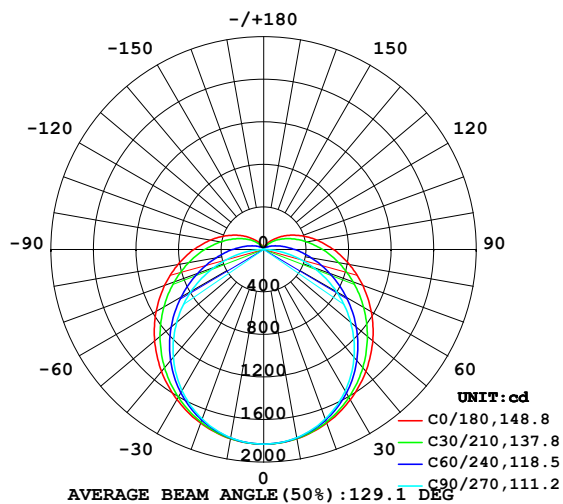


LUMINAIRE PHOTOMETRIC TEST REPORT

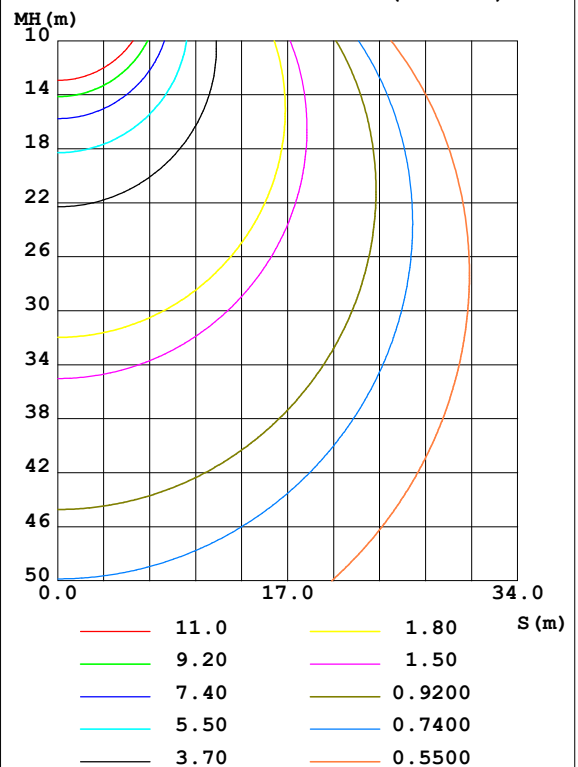
Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 161.53 lm/W			
MODEL		I _{max} (cd)	1830	S/MH (C0/180)	1.33
NOMINAL POWER (W)	48	LOR (%)	100.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	7430.7	η UP, DN (C0-180)	6.6, 43.4
NOMINAL FLUX (lm)	7430.68	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	6.6, 43.4
LAMPS INSIDE	1	η up (%)	13.2	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	230	η down (%)	86.8	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.380m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1806	1802	1796	1802	1806	1802	1796	1802	0- 10	173.3	173.3	2.33,2.33
20	1737	1717	1696	1717	1737	1717	1696	1717	10- 20	498.6	672.0	9.04,9.04
30	1631	1582	1535	1582	1631	1582	1535	1582	20- 30	763.3	1435	19.3,19.3
40	1496	1408	1322	1408	1496	1408	1322	1408	30- 40	938.7	2374	31.9,31.9
50	1339	1207	1069	1207	1339	1207	1069	1207	40- 50	1011	3385	45.5,45.5
60	1169	995.9	789.4	995.9	1169	995.9	789.4	995.9	50- 60	981.4	4366	58.8,58.8
70	992.3	789.6	499.1	789.6	992.3	789.6	499.1	789.6	60- 70	868.1	5234	70.4,70.4
80	818.5	601.2	215.4	601.2	818.5	601.2	215.4	601.2	70- 80	700.6	5935	79.9,79.9
90	656.5	439.2	4.021	439.2	656.5	439.2	4.021	439.2	80- 90	517.8	6452	86.8,86.8
100	511.1	308.2	5.489	308.2	511.1	308.2	5.489	308.2	90-100	367.2	6820	91.8,91.8
110	379.8	207.1	7.389	207.1	379.8	207.1	7.389	207.1	100-110	252.0	7072	95.2,95.2
120	267.7	124.5	9.327	124.5	267.7	124.5	9.327	124.5	110-120	162.5	7234	97.4,97.4
130	175.8	75.25	11.21	75.25	175.8	75.25	11.21	75.25	120-130	96.42	7331	98.7,98.7
140	107.5	45.81	13.25	45.81	107.5	45.81	13.25	45.81	130-140	52.40	7383	99.4,99.4
150	60.92	30.65	15.26	30.65	60.92	30.65	15.26	30.65	140-150	26.79	7410	99.7,99.7
160	34.15	23.19	16.97	23.19	34.15	23.19	16.97	23.19	150-160	13.02	7423	99.9,99.9
170	21.68	19.32	17.97	19.32	21.68	19.32	17.97	19.32	160-170	6.037	7429	100,100
180	17.76	18.40	18.59	18.40	17.76	18.40	18.59	18.40	170-180	1.792	7431	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 2876.8 lm

%lum = 38.7%

%lamp = 38.7%

Conical surface Flux(120deg): 4366 lm

%lum = 58.8%

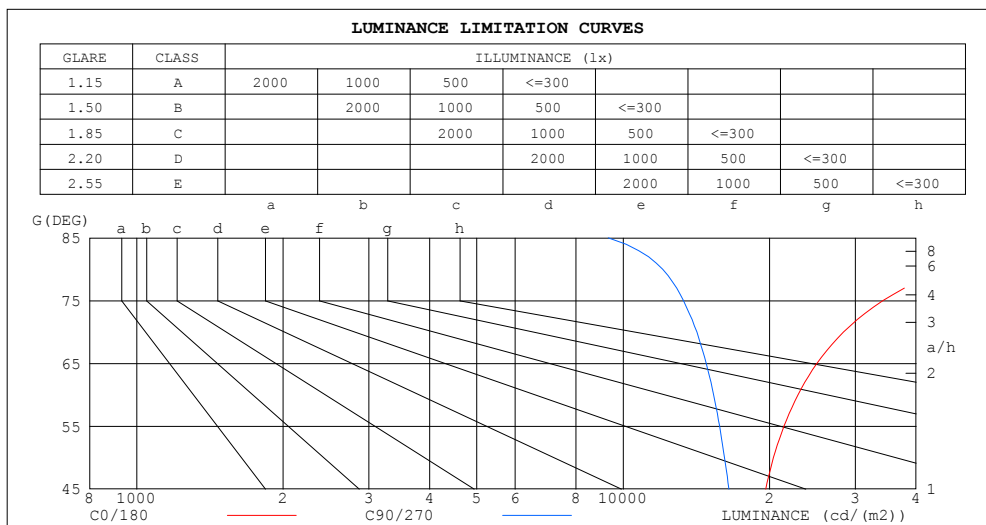
%lamp = 58.8%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.380m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:



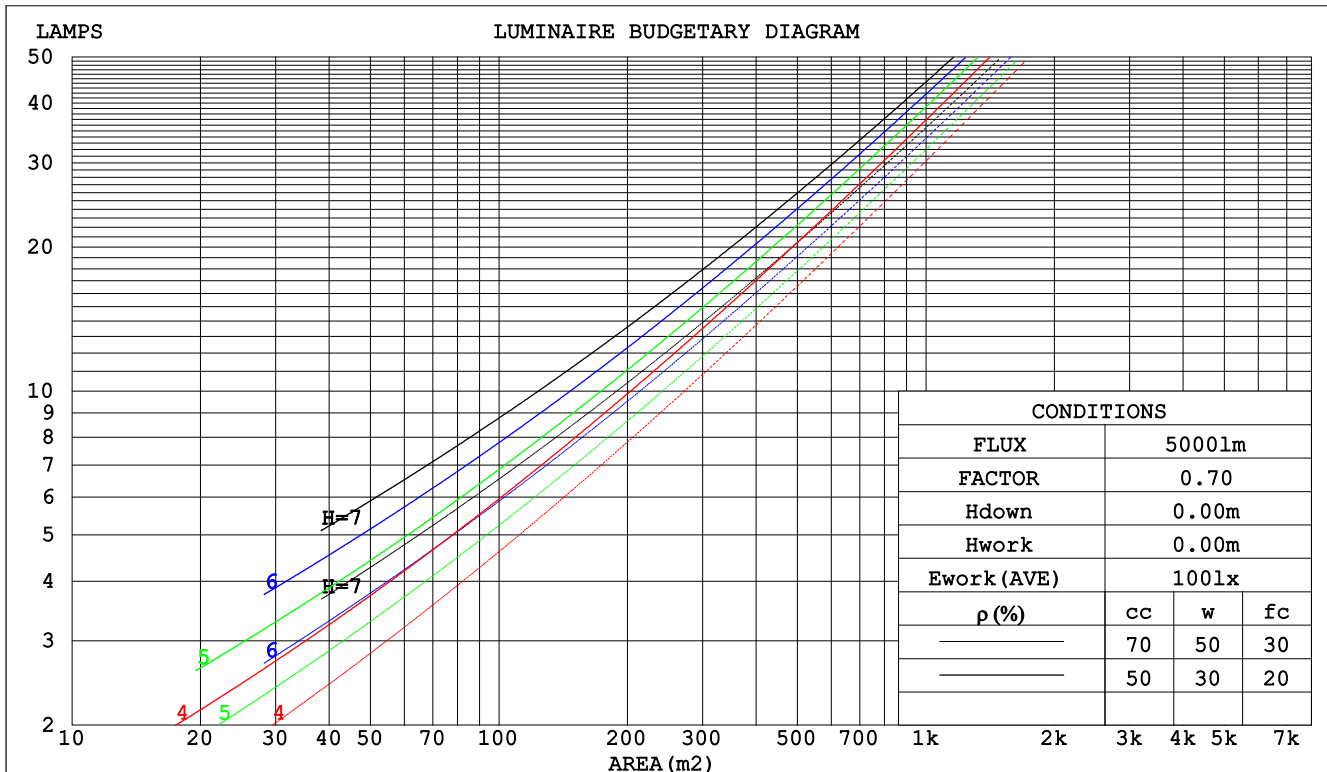
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.380m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.16	1.16	1.16	1.12	1.12	1.12	1.04	1.04	1.04	.97	.97	.97	.90	.90	.90	.87
1.0	.97	.92	.87	.94	.89	.84	.87	.83	.79	.81	.77	.75	.75	.72	.70	.67
2.0	.83	.75	.69	.80	.73	.67	.74	.69	.64	.69	.64	.60	.64	.60	.57	.54
3.0	.72	.63	.56	.70	.62	.55	.65	.58	.52	.60	.54	.50	.56	.51	.47	.44
4.0	.64	.54	.47	.61	.53	.46	.57	.50	.44	.53	.47	.42	.50	.44	.40	.37
5.0	.57	.47	.40	.55	.46	.39	.51	.43	.38	.48	.41	.36	.44	.39	.34	.32
6.0	.51	.41	.35	.49	.40	.34	.46	.38	.33	.43	.36	.31	.40	.34	.30	.28
7.0	.46	.37	.30	.44	.36	.30	.42	.34	.29	.39	.32	.28	.37	.31	.26	.24
8.0	.42	.33	.27	.40	.32	.26	.38	.31	.25	.36	.29	.25	.34	.28	.24	.21
9.0	.38	.30	.24	.37	.29	.24	.35	.28	.23	.33	.27	.22	.31	.25	.21	.19
10.0	.35	.27	.22	.34	.26	.21	.32	.25	.21	.30	.24	.20	.29	.23	.19	.17



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.380m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm					
NAME: Ti60L-CC-48-1500K-40H			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.: ERVAN			SUR.:		Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.378	.215	.068	.367	.209	.067	.346	.199	.063	.327	.188	.060	.309	.179	.058	
2.0	.330	.181	.055	.320	.176	.054	.301	.167	.052	.284	.159	.050	.267	.151	.048	
3.0	.294	.157	.047	.285	.153	.046	.268	.145	.044	.252	.138	.042	.238	.132	.041	
4.0	.266	.138	.041	.257	.135	.040	.242	.128	.038	.228	.122	.037	.214	.116	.035	
5.0	.242	.123	.036	.234	.120	.035	.220	.115	.034	.207	.109	.033	.195	.104	.031	
6.0	.222	.111	.032	.215	.109	.031	.202	.104	.030	.191	.099	.029	.180	.095	.028	
7.0	.205	.101	.029	.199	.099	.028	.187	.095	.027	.176	.090	.026	.166	.086	.025	
8.0	.190	.093	.026	.185	.091	.026	.174	.087	.025	.164	.083	.024	.155	.079	.023	
9.0	.177	.086	.024	.172	.084	.024	.162	.080	.023	.153	.077	.022	.145	.074	.021	
10.0	.166	.080	.022	.161	.078	.022	.152	.075	.021	.144	.071	.020	.136	.068	.020	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.291	.291	.291	.249	.249	.249	.170	.170	.170	.097	.097	.097	.031	.031	.031	
1.0	.286	.257	.230	.245	.220	.198	.167	.152	.137	.096	.088	.080	.031	.028	.026	
2.0	.279	.234	.195	.239	.201	.169	.164	.139	.118	.094	.081	.069	.030	.026	.022	
3.0	.272	.217	.173	.233	.187	.150	.160	.130	.105	.092	.076	.062	.030	.025	.020	
4.0	.264	.204	.159	.226	.176	.138	.156	.123	.097	.090	.072	.057	.029	.023	.019	
5.0	.256	.194	.149	.220	.168	.129	.151	.117	.091	.088	.069	.054	.028	.022	.018	
6.0	.248	.186	.141	.214	.161	.123	.147	.113	.087	.085	.066	.052	.028	.022	.017	
7.0	.241	.179	.136	.208	.156	.119	.143	.109	.084	.083	.064	.050	.027	.021	.017	
8.0	.235	.174	.132	.202	.151	.115	.140	.106	.082	.081	.062	.049	.026	.020	.016	
9.0	.228	.169	.129	.197	.147	.112	.136	.103	.080	.079	.061	.048	.026	.020	.016	
10.0	.223	.165	.126	.192	.143	.110	.133	.101	.078	.078	.060	.047	.025	.020	.016	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm										
NAME: Ti60L-CC-48-1500K-40H					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ERVAN					SUR.:			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	16.0	17.4	16.5	17.9	18.3	14.3	15.8	14.8	16.2	16.7
3H	18.6	19.9	19.0	20.3	20.8	15.9	17.2	16.3	17.7	18.2
4H	20.0	21.2	20.5	21.7	22.2	16.5	17.8	17.0	18.2	18.8
6H	21.5	22.7	22.0	23.2	23.7	17.0	18.2	17.5	18.7	19.2
8H	22.3	23.5	22.9	24.0	24.6	17.1	18.3	17.7	18.8	19.4
12H	23.3	24.4	23.8	24.9	25.5	17.2	18.3	17.8	18.9	19.4
4H 2H	16.6	17.8	17.1	18.3	18.9	15.3	16.6	15.8	17.1	17.6
3H	19.4	20.5	19.9	21.0	21.6	17.1	18.2	17.7	18.8	19.3
4H	21.0	22.0	21.5	22.5	23.1	17.9	19.0	18.5	19.5	20.1
6H	22.7	23.6	23.3	24.2	24.8	18.6	19.5	19.2	20.1	20.7
8H	23.7	24.5	24.3	25.1	25.8	18.8	19.7	19.4	20.3	20.9
12H	24.8	25.6	25.4	26.2	26.9	19.0	19.8	19.6	20.4	21.1
8H 4H	21.3	22.1	21.9	22.7	23.4	18.9	19.7	19.5	20.3	21.0
6H	23.4	24.1	24.0	24.7	25.4	19.9	20.6	20.5	21.2	21.9
8H	24.5	25.2	25.2	25.8	26.6	20.3	21.0	21.0	21.6	22.3
12H	25.9	26.5	26.6	27.1	27.9	20.7	21.2	21.3	21.9	22.6
12H 4H	21.3	22.1	21.9	22.7	23.4	19.2	20.0	19.8	20.6	21.2
6H	23.5	24.1	24.1	24.8	25.5	20.4	21.0	21.0	21.7	22.4
8H	24.8	25.3	25.4	26.0	26.7	21.0	21.6	21.7	22.2	23.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 7431 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 7.0)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	50	37	30	49	37	30	47	36	30	23
0.80	59	46	38	58	46	38	55	44	37	30
1.00	67	54	46	65	53	46	62	54	45	36
1.25	74	61	53	72	60	52	68	58	51	42
1.50	79	67	59	76	66	58	72	63	56	46
2.00	86	75	67	83	74	66	78	70	64	53
2.50	90	81	73	87	78	71	82	74	68	57
3.00	94	85	78	91	83	76	85	78	73	61
4.00	99	91	85	95	88	83	89	83	79	66
5.00	102	95	89	98	92	87	91	87	82	69
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended				SHRNM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-04-18

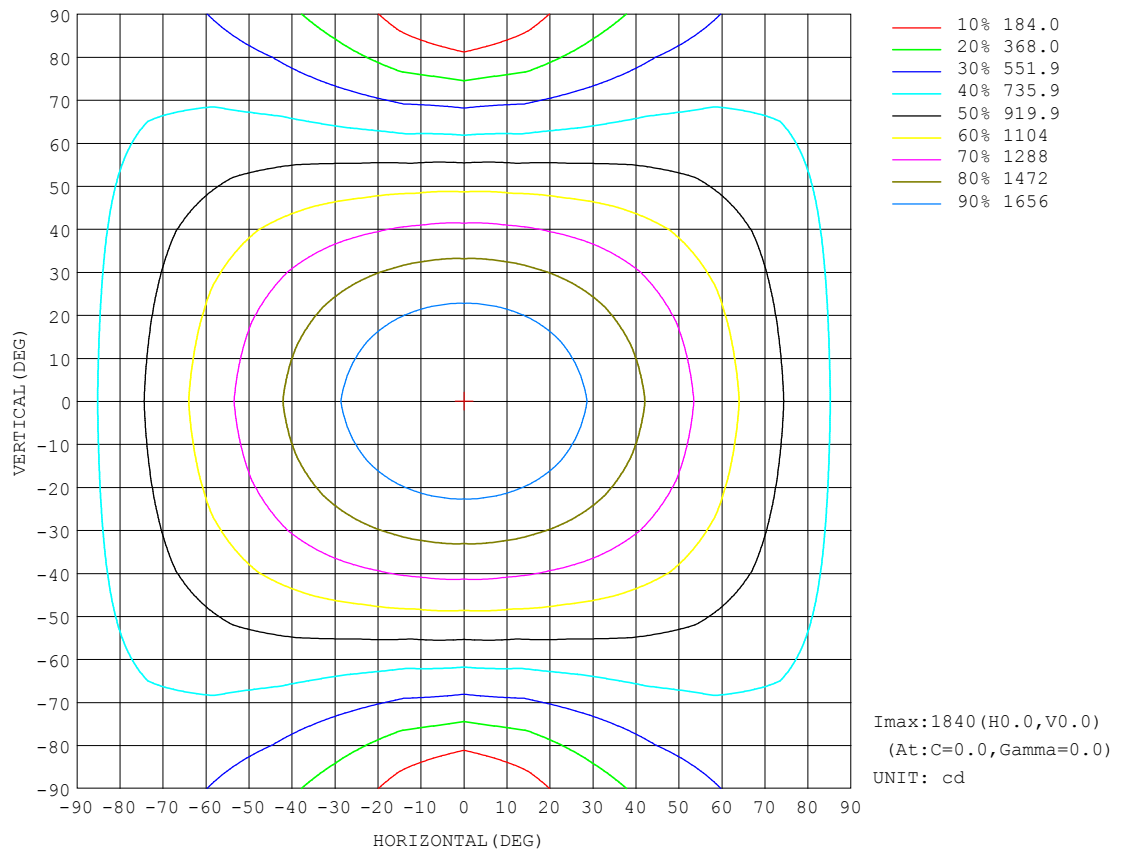
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

```

ISOCANDELA DIAGRAM

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

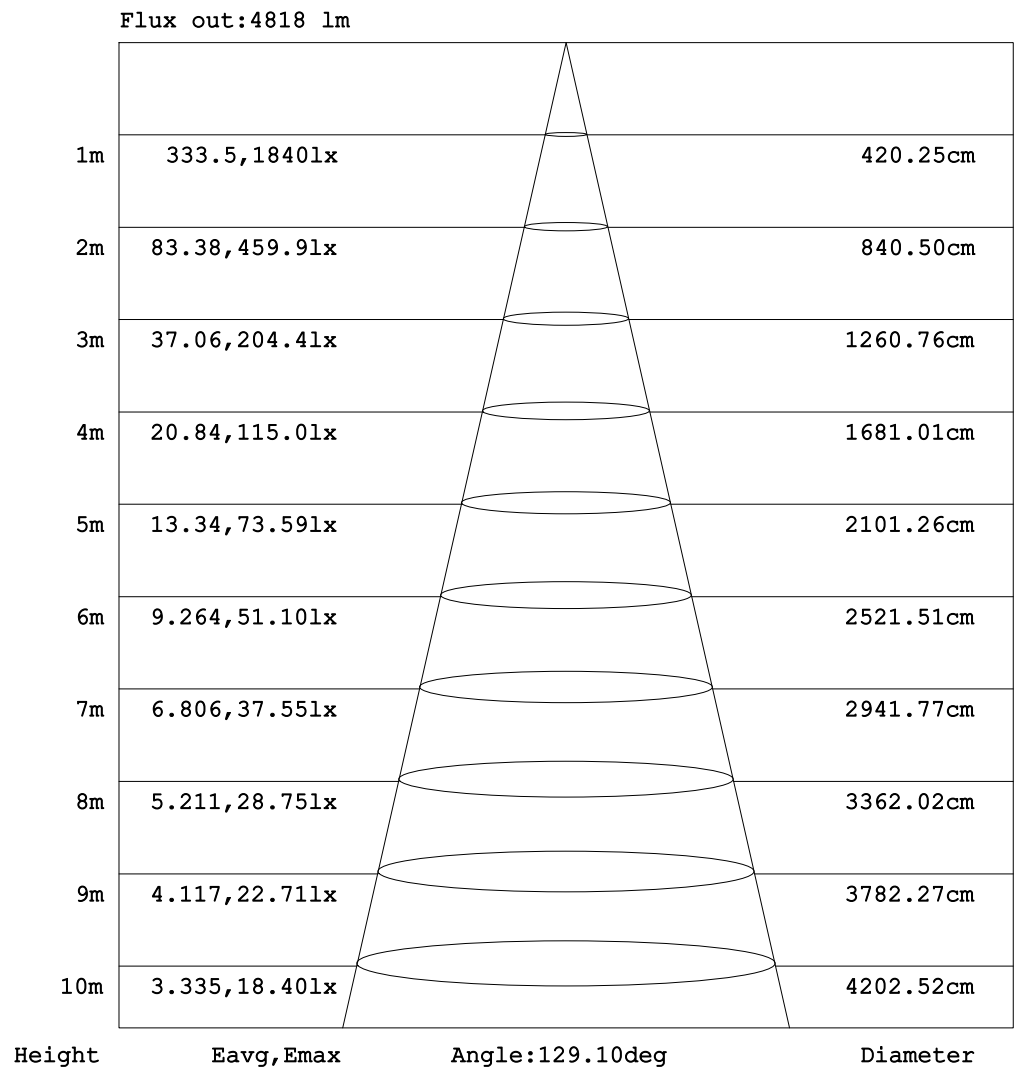


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:



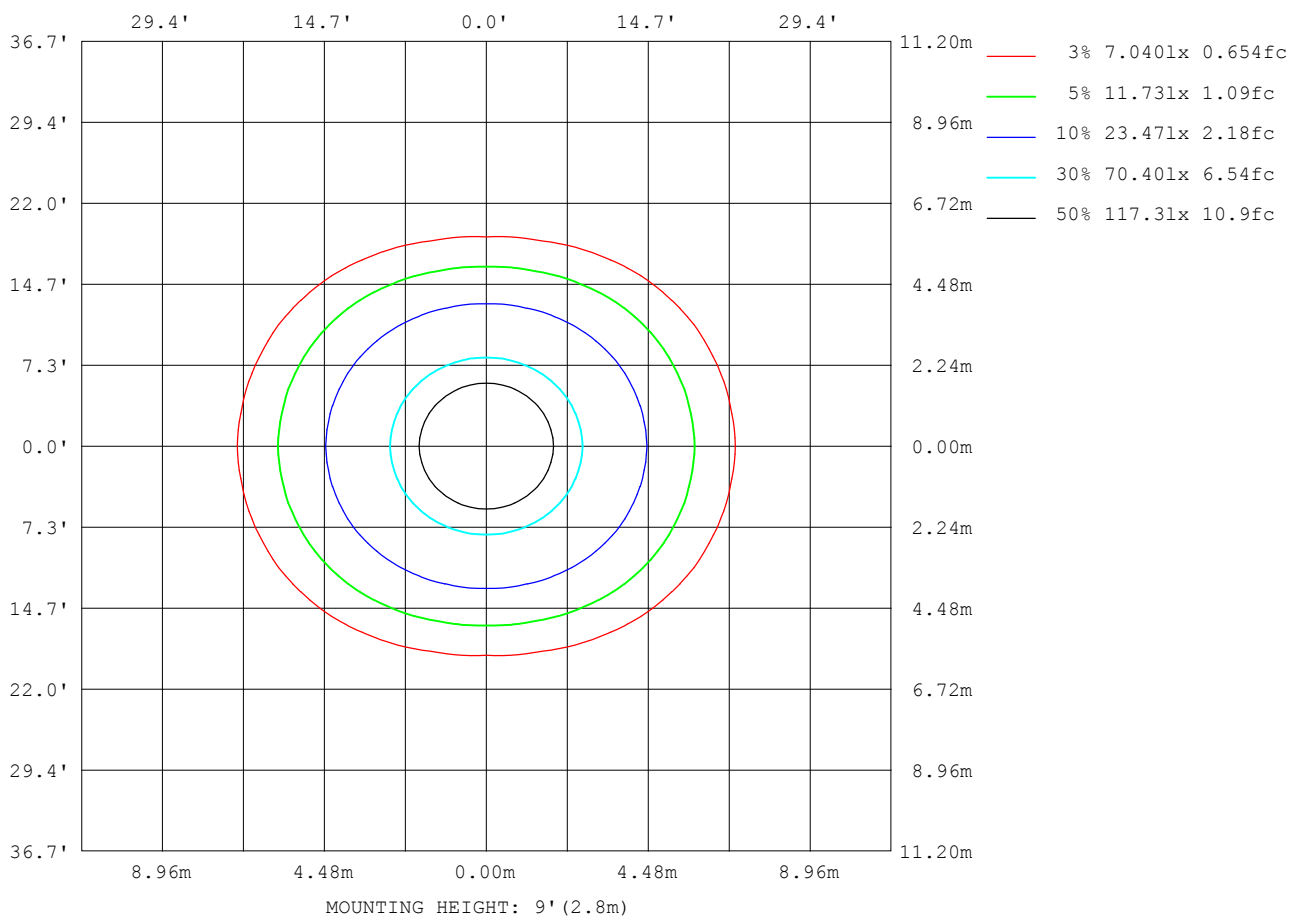
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.380m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.380m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

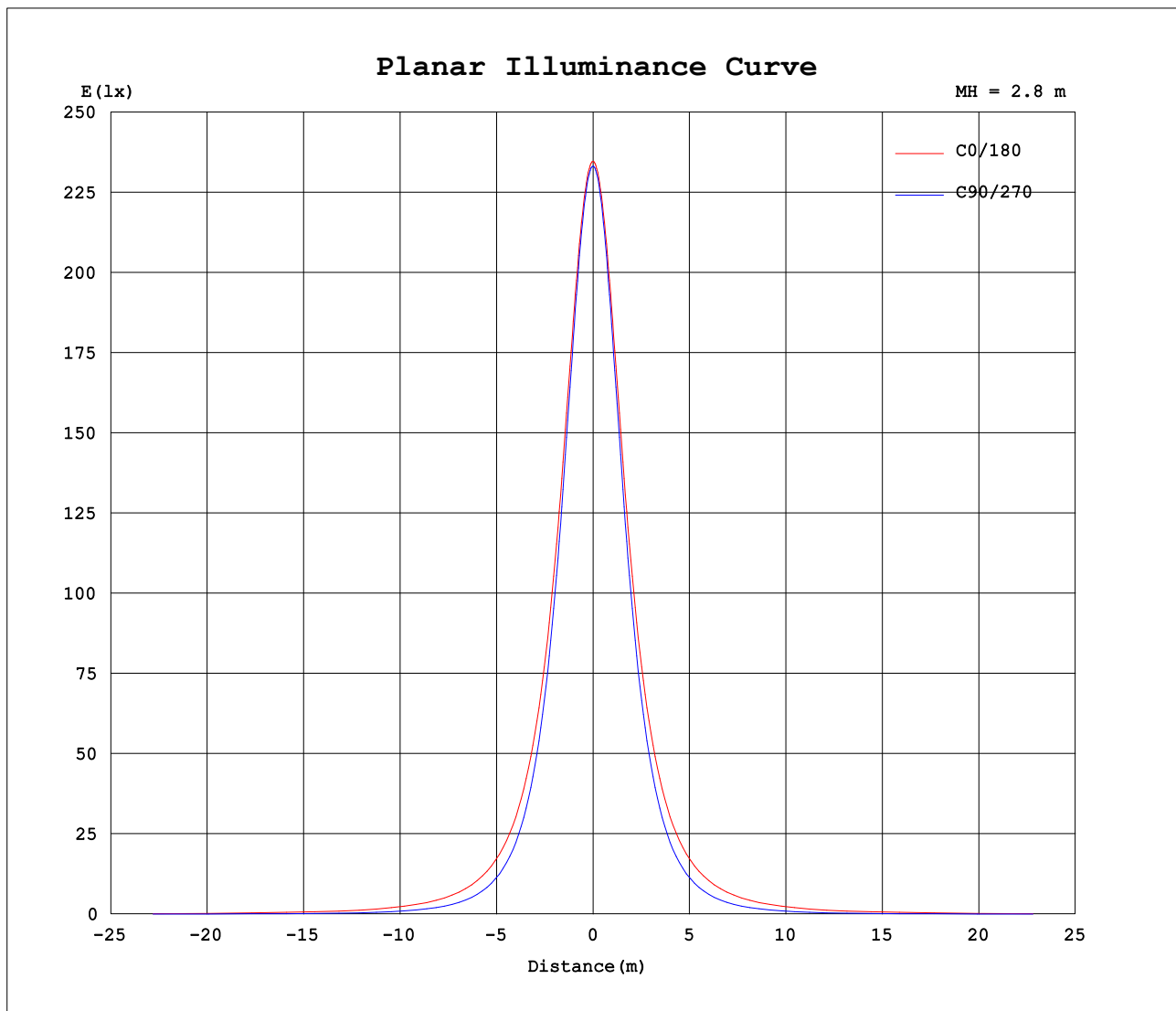
AvgL	cd/m2
L_0~180 (65) av	24890
L_0~180 (75) av	34005
L_0~180 (85) av	82127
L_90~270 (65) av	14829
L_90~270 (75) av	13321
L_90~270 (85) av	9330
L_45 (65) av	20528
L_45 (75) av	26034
L_45 (85) av	57697

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.380m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.380m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm																		
NAME: Ti60L-CC-48-1500K-40H									TYPE:					WEIGHT:				
SPEC.:									DIM.:					SERIAL No.:				
MFR.: ERVAN									SUR.:					Shielding Angle:				

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830
5	1824	1824	1824	1823	1823	1822	1822	1822	1823	1823	1824	1824	1824	1824	1824	1823	1823	1822	1822
10	1806	1806	1804	1802	1799	1797	1796	1797	1799	1802	1804	1806	1806	1806	1804	1802	1799	1797	1796
15	1777	1775	1772	1766	1760	1756	1754	1756	1760	1766	1772	1775	1777	1775	1772	1766	1760	1756	1754
20	1737	1734	1727	1717	1707	1699	1696	1699	1707	1717	1727	1734	1737	1734	1727	1717	1707	1699	1696
25	1688	1682	1671	1655	1639	1627	1623	1627	1639	1655	1671	1682	1688	1682	1671	1655	1639	1627	1623
30	1631	1622	1606	1582	1558	1541	1535	1541	1558	1582	1606	1622	1631	1622	1606	1582	1558	1541	1535
35	1567	1555	1532	1499	1466	1443	1435	1443	1466	1499	1532	1555	1567	1555	1532	1499	1466	1443	1435
40	1496	1481	1451	1408	1364	1333	1322	1333	1364	1408	1451	1481	1496	1481	1451	1408	1364	1333	1322
45	1420	1402	1364	1310	1254	1214	1200	1214	1254	1310	1364	1402	1420	1402	1364	1310	1254	1214	1200
50	1339	1318	1273	1207	1138	1087	1069	1087	1138	1207	1273	1318	1339	1318	1273	1207	1138	1087	1069
55	1255	1232	1179	1102	1018	954	932	954	1018	1102	1179	1232	1255	1232	1179	1102	1018	954	932
60	1169	1143	1084	996	897	817	789	817	897	996	1084	1143	1169	1143	1084	996	897	817	789
65	1081	1053	989	891	777	680	644	680	777	891	989	1053	1081	1053	989	891	777	680	644
70	992	963	895	790	662	546	499	546	662	790	895	963	992	963	895	790	662	546	499
75	904	874	804	692	554	417	354	417	554	692	804	874	904	874	804	692	554	417	354
80	818	788	716	601	455	301	215	301	455	601	716	788	818	788	716	601	455	301	215
85	736	704	632	517	367	204	83.6	204	367	517	632	704	736	704	632	517	367	204	83.6
90	657	626	554	439	292	132	4.02	132	292	439	554	626	657	626	554	439	292	132	4.02
95	582	551	482	369	230	83.6	4.62	83.6	230	369	482	551	582	551	482	369	230	83.6	4.62
100	511	482	413	308	178	53.7	5.49	53.7	178	308	413	482	511	482	413	308	178	53.7	5.49
105	443	415	352	254	136	37.7	6.42	37.7	136	254	352	415	443	415	352	254	136	37.7	6.42
110	380	354	296	207	106	28.3	7.39	28.3	106	207	296	354	380	354	296	207	106	28.3	7.39
115	321	297	245	167	79.0	22.3	8.35	22.3	79.0	167	245	297	321	297	245	167	79.0	22.3	8.35
120	268	246	200	125	60.6	19.2	9.33	19.2	60.6	125	200	246	268	246	200	125	60.6	19.2	9.33
125	219	200	161	96.2	47.7	17.6	10.3	17.6	47.7	96.2	161	200	219	200	161	96.2	47.7	17.6	10.3
130	176	160	123	75.2	38.3	16.8	11.2	16.8	38.3	75.2	123	160	176	160	123	75.2	38.3	16.8	11.2
135	139	126	91.2	58.2	31.8	16.5	12.2	16.5	31.8	58.2	91.2	126	139	126	91.2	58.2	31.8	16.5	12.2
140	107	96.9	69.0	45.8	27.2	16.6	13.3	16.6	27.2	45.8	69.0	96.9	107	96.9	69.0	45.8	27.2	16.6	13.3
145	81.6	73.2	51.9	36.8	24.5	16.9	14.3	16.9	24.5	36.8	51.9	73.2	81.6	73.2	51.9	36.8	24.5	16.9	14.3
150	60.9	51.1	40.9	30.6	22.6	17.2	15.3	17.2	22.6	30.6	40.9	51.1	60.9	51.1	40.9	30.6	22.6	17.2	15.3
155	45.4	37.2	32.1	26.4	21.1	17.5	16.2	17.5	21.1	26.4	32.1	37.2	45.4	37.2	32.1	26.4	21.1	17.5	16.2
160	34.1	28.4	25.6	23.2	20.2	17.8	17.0	17.8	20.2	23.2	25.6	28.4	34.1	28.4	25.6	23.2	20.2	17.8	17.0
165	26.6	22.9	22.2	21.0	19.3	18.1	17.6	18.1	19.3	21.0	22.2	22.9	26.6	22.9	22.2	21.0	19.3	18.1	17.6
170	21.7	19.8	19.8	19.3	18.8	18.2	18.0	18.2	18.8	19.3	19.8	19.8	21.7	19.8	19.8	19.3	18.8	18.2	18.0
175	18.2	18.2	18.7	18.6	18.7	18.6	18.4	18.6	18.7	18.6	18.7	18.2	18.2	18.2	18.7	18.6	18.7	18.6	18.4
180	17.8	18.0	18.4	18.4	18.7	18.7	18.6	18.7	18.7	18.4	18.4	18.0	17.8	18.0	18.4	18.4	18.7	18.7	18.6

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.4V I:0.2033A P:46.00W PF:0.9823 Freq:49.99Hz Lamp Flux:7430.68x1 lm		
NAME: Ti60L-CC-48-1500K-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	1830	1830	1830	1830	1830														
5	1822	1823	1823	1824	1824														
10	1797	1799	1802	1804	1806														
15	1756	1760	1766	1772	1775														
20	1699	1707	1717	1727	1734														
25	1627	1639	1655	1671	1682														
30	1541	1558	1582	1606	1622														
35	1443	1466	1499	1532	1555														
40	1333	1364	1408	1451	1481														
45	1214	1254	1310	1364	1402														
50	1087	1138	1207	1273	1318														
55	954	1018	1102	1179	1232														
60	817	897	996	1084	1143														
65	680	777	891	989	1053														
70	546	662	790	895	963														
75	417	554	692	804	874														
80	301	455	601	716	788														
85	204	367	517	632	704														
90	132	292	439	554	626														
95	83.6	230	369	482	551														
100	53.7	178	308	413	482														
105	37.7	136	254	352	415														
110	28.3	106	207	296	354														
115	22.3	79.0	167	245	297														
120	19.2	60.6	125	200	246														
125	17.6	47.7	96.2	161	200														
130	16.8	38.3	75.2	123	160														
135	16.5	31.8	58.2	91.2	126														
140	16.6	27.2	45.8	69.0	96.9														
145	16.9	24.5	36.8	51.9	73.2														
150	17.2	22.6	30.6	40.9	51.1														
155	17.5	21.1	26.4	32.1	37.2														
160	17.8	20.2	23.2	25.6	28.4														
165	18.1	19.3	21.0	22.2	22.9														
170	18.2	18.8	19.3	19.8	19.8														
175	18.6	18.7	18.6	18.7	18.2														
180	18.7	18.7	18.4	18.4	18.0														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-04-18

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.380m [K=1.0000]
Remarks:

Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830
3.0	1828	1828	1828	1828	1828	1827	1827	1827	1828	1828
6.0	1822	1822	1821	1820	1819	1818	1818	1818	1819	1820
9.0	1811	1811	1809	1807	1805	1803	1803	1803	1805	1807
12.0	1796	1795	1793	1789	1785	1782	1782	1782	1785	1789
15.0	1777	1775	1772	1766	1760	1756	1754	1756	1760	1766
18.0	1754	1752	1746	1738	1730	1723	1721	1723	1730	1738
21.0	1728	1724	1717	1705	1694	1685	1683	1685	1694	1705
24.0	1699	1693	1683	1668	1654	1642	1639	1642	1654	1668
27.0	1666	1660	1646	1627	1608	1594	1589	1594	1608	1627
30.0	1631	1622	1606	1582	1558	1541	1535	1541	1558	1582
33.0	1593	1583	1562	1533	1505	1484	1476	1484	1505	1533
36.0	1553	1541	1516	1481	1447	1422	1413	1422	1447	1481
39.0	1511	1496	1468	1426	1385	1356	1345	1356	1385	1426
42.0	1466	1450	1417	1369	1321	1286	1274	1286	1321	1369
45.0	1420	1402	1364	1310	1254	1214	1200	1214	1254	1310
48.0	1372	1352	1310	1249	1185	1138	1122	1138	1185	1249
51.0	1323	1301	1254	1187	1114	1061	1042	1061	1114	1187
54.0	1272	1249	1198	1123	1042	980.8	959.6	980.8	1042	1123
57.0	1221	1197	1141	1060	969.6	899.4	875.2	899.4	969.6	1060
60.0	1169	1143	1084	995.9	896.8	817.3	789.4	817.3	896.8	995.9
63.0	1116	1089	1027	933.2	824.7	734.8	702.3	734.8	824.7	933.2
66.0	1063	1035	970.2	870.9	753.7	652.5	615.3	652.5	753.7	870.9
69.0	1010	980.8	913.8	809.7	684.6	571.8	527.8	571.8	684.6	809.7
72.0	957.0	927.0	858.1	750.0	617.9	493.2	440.4	493.2	617.9	750.0
75.0	904.4	874.0	803.5	692.4	553.9	416.8	354.3	416.8	553.9	692.4
78.0	852.6	821.8	750.3	636.9	493.5	345.4	270.4	345.4	493.5	636.9
81.0	801.4	770.5	698.4	583.7	436.0	280.3	188.3	280.3	436.0	583.7
84.0	751.7	720.8	648.5	533.0	383.3	222.4	109.1	222.4	383.3	533.0
87.0	703.3	672.5	600.4	485.1	335.4	171.9	37.15	171.9	335.4	485.1
90.0	656.5	625.8	554.2	439.2	292.0	131.9	4.021	131.9	292.0	439.2
93.0	611.2	580.7	510.0	396.1	253.1	100.4	4.308	100.4	253.1	396.1
96.0	567.5	537.3	467.7	356.5	218.2	76.34	4.797	76.34	218.2	356.5
99.0	525.0	495.4	426.5	319.8	187.5	58.43	5.306	58.43	187.5	319.8
102.0	484.0	454.3	388.0	285.7	160.9	46.05	5.859	46.05	160.9	285.7
105.0	442.8	415.1	351.7	254.3	136.4	37.74	6.417	37.74	136.4	254.3
108.0	404.5	377.5	317.4	225.1	117.0	31.69	7.006	31.69	117.0	225.1
111.0	367.9	342.0	285.1	198.7	100.3	26.76	7.576	26.76	100.3	198.7
114.0	332.6	308.2	254.9	174.9	83.97	23.15	8.166	23.15	83.97	174.9
117.0	299.2	276.2	226.5	148.9	70.64	20.79	8.747	20.79	70.64	148.9
120.0	267.7	246.2	200.2	124.5	60.62	19.21	9.327	19.21	60.62	124.5
123.0	238.1	217.6	176.2	107.4	52.40	18.15	9.906	18.15	52.40	107.4
126.0	209.9	191.3	154.2	91.92	45.55	17.44	10.47	17.44	45.55	91.92
129.0	183.9	167.4	130.6	79.15	39.94	16.96	11.02	16.96	39.94	79.15
132.0	160.3	145.4	108.4	68.00	35.42	16.63	11.57	16.63	35.42	68.00
135.0	138.8	125.5	91.15	58.20	31.78	16.47	12.18	16.47	31.78	58.20
138.0	119.4	107.7	77.21	50.22	28.83	16.48	12.82	16.48	28.83	50.22
141.0	101.9	91.83	65.13	43.82	26.60	16.65	13.46	16.65	26.60	43.82
144.0	86.41	77.75	54.33	38.40	25.01	16.83	14.08	16.83	25.01	38.40
147.0	72.70	63.51	47.33	33.98	23.68	16.98	14.68	16.98	23.68	33.98
150.0	60.92	51.14	40.88	30.65	22.59	17.16	15.26	17.16	22.59	30.65
153.0	51.05	41.88	35.23	27.92	21.66	17.36	15.82	17.36	21.66	27.92
156.0	42.82	35.14	30.63	25.64	20.91	17.56	16.35	17.56	20.91	25.64
159.0	36.07	29.89	26.76	23.75	20.35	17.76	16.82	17.76	20.35	23.75
162.0	30.73	25.87	24.10	22.17	19.79	17.93	17.22	17.93	19.79	22.17
165.0	26.56	22.91	22.19	20.97	19.31	18.07	17.56	18.07	19.31	20.97
168.0	23.32	20.86	20.73	19.88	18.93	18.16	17.82	18.16	18.93	19.88
171.0	20.91	19.36	19.55	19.11	18.70	18.29	18.07	18.29	18.70	19.11
174.0	18.77	18.45	18.86	18.67	18.67	18.51	18.33	18.51	18.67	18.67
177.0	17.66	18.06	18.48	18.43	18.63	18.60	18.47	18.60	18.63	18.43
180.0	17.76	17.99	18.44	18.40	18.68	18.69	18.59	18.69	18.68	18.40
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	1830	1830	1830	1830	1830	1830	1830	1830	1830	1830
3.0	1828	1828	1828	1828	1828	1828	1828	1827	1827	1827
6.0	1821	1822	1822	1822	1821	1820	1819	1818	1818	1818
9.0	1809	1811	1811	1811	1809	1807	1805	1803	1803	1803
12.0	1793	1795	1796	1795	1793	1789	1785	1782	1782	1782
15.0	1772	1775	1777	1775	1772	1766	1760	1756	1754	1756
18.0	1746	1752	1754	1752	1746	1738	1730	1723	1721	1723
21.0	1717	1724	1728	1724	1717	1705	1694	1685	1683	1685
24.0	1683	1693	1699	1693	1683	1668	1654	1642	1639	1642
27.0	1646	1660	1666	1660	1646	1627	1608	1594	1589	1594
30.0	1606	1622	1631	1622	1606	1582	1558	1541	1535	1541

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.380m [K=1.0000]
 Remarks:

Photometric Data Table [cd]

33.0	1562	1583	1593	1583	1562	1533	1505	1484	1476	1484
36.0	1516	1541	1553	1541	1516	1481	1447	1422	1413	1422
39.0	1468	1496	1511	1496	1468	1426	1385	1356	1345	1356
42.0	1417	1450	1466	1450	1417	1369	1321	1286	1274	1286
45.0	1364	1402	1420	1402	1364	1310	1254	1214	1200	1214
48.0	1310	1352	1372	1352	1310	1249	1185	1138	1122	1138
51.0	1254	1301	1323	1301	1254	1187	1114	1061	1042	1061
54.0	1198	1249	1272	1249	1198	1123	1042	980.8	959.6	980.8
57.0	1141	1197	1221	1197	1141	1060	969.6	899.4	875.2	899.4
60.0	1084	1143	1169	1143	1084	995.9	896.8	817.3	789.4	817.3
63.0	1027	1089	1116	1089	1027	933.2	824.7	734.8	702.3	734.8
66.0	970.2	1035	1063	1035	970.2	870.9	753.7	652.5	615.3	652.5
69.0	913.8	980.8	1010	980.8	913.8	809.7	684.6	571.8	527.8	571.8
72.0	858.1	927.0	957.0	927.0	858.1	750.0	617.9	493.2	440.4	493.2
75.0	803.5	874.0	904.4	874.0	803.5	692.4	553.9	416.8	354.3	416.8
78.0	750.3	821.8	852.6	821.8	750.3	636.9	493.5	345.4	270.4	345.4
81.0	698.4	770.5	801.4	770.5	698.4	583.7	436.0	280.3	188.3	280.3
84.0	648.5	720.8	751.7	720.8	648.5	533.0	383.3	222.4	109.1	222.4
87.0	600.4	672.5	703.3	672.5	600.4	485.1	335.4	171.9	37.15	171.9
90.0	554.2	625.8	656.5	625.8	554.2	439.2	292.0	131.9	4.021	131.9
93.0	510.0	580.7	611.2	580.7	510.0	396.1	253.1	100.4	4.308	100.4
96.0	467.7	537.3	567.5	537.3	467.7	356.5	218.2	76.34	4.797	76.34
99.0	426.5	495.4	525.0	495.4	426.5	319.8	187.5	58.43	5.306	58.43
102.0	388.0	454.3	484.0	454.3	388.0	285.7	160.9	46.05	5.859	46.05
105.0	351.7	415.1	442.8	415.1	351.7	254.3	136.4	37.74	6.417	37.74
108.0	317.4	377.5	404.5	377.5	317.4	225.1	117.0	31.69	7.006	31.69
111.0	285.1	342.0	367.9	342.0	285.1	198.7	100.3	26.76	7.576	26.76
114.0	254.9	308.2	332.6	308.2	254.9	174.9	83.97	23.15	8.166	23.15
117.0	226.5	276.2	299.2	276.2	226.5	148.9	70.64	20.79	8.747	20.79
120.0	200.2	246.2	267.7	246.2	200.2	124.5	60.62	19.21	9.327	19.21
123.0	176.2	217.6	238.1	217.6	176.2	107.4	52.40	18.15	9.906	18.15
126.0	154.2	191.3	209.9	191.3	154.2	91.92	45.55	17.44	10.47	17.44
129.0	130.6	167.4	183.9	167.4	130.6	79.15	39.94	16.96	11.02	16.96
132.0	108.4	145.4	160.3	145.4	108.4	68.00	35.42	16.63	11.57	16.63
135.0	91.15	125.5	138.8	125.5	91.15	58.20	31.78	16.47	12.18	16.47
138.0	77.21	107.7	119.4	107.7	77.21	50.22	28.83	16.48	12.82	16.48
141.0	65.13	91.83	101.9	91.83	65.13	43.82	26.60	16.65	13.46	16.65
144.0	54.33	77.75	86.41	77.75	54.33	38.40	25.01	16.83	14.08	16.83
147.0	47.33	63.51	72.70	63.51	47.33	33.98	23.68	16.98	14.68	16.98
150.0	40.88	51.14	60.92	51.14	40.88	30.65	22.59	17.16	15.26	17.16
153.0	35.23	41.88	51.05	41.88	35.23	27.92	21.66	17.36	15.82	17.36
156.0	30.63	35.14	42.82	35.14	30.63	25.64	20.91	17.56	16.35	17.56
159.0	26.76	29.89	36.07	29.89	26.76	23.75	20.35	17.76	16.82	17.76
162.0	24.10	25.87	30.73	25.87	24.10	22.17	19.79	17.93	17.22	17.93
165.0	22.19	22.91	26.56	22.91	22.19	20.97	19.31	18.07	17.56	18.07
168.0	20.73	20.86	23.32	20.86	20.73	19.88	18.93	18.16	17.82	18.16
171.0	19.55	19.36	20.91	19.36	19.55	19.11	18.70	18.29	18.07	18.29
174.0	18.86	18.45	18.77	18.45	18.86	18.67	18.67	18.51	18.33	18.51
177.0	18.48	18.06	17.66	18.06	18.48	18.43	18.63	18.60	18.47	18.60
180.0	18.44	17.99	17.76	17.99	18.44	18.40	18.68	18.69	18.59	18.69
G/C	300.0	315.0	330.0	345.0						
0.0	1830	1830	1830	1830						
3.0	1828	1828	1828	1828						
6.0	1819	1820	1821	1822						
9.0	1805	1807	1809	1811						
12.0	1785	1789	1793	1795						
15.0	1760	1766	1772	1775						
18.0	1730	1738	1746	1752						
21.0	1694	1705	1717	1724						
24.0	1654	1668	1683	1693						
27.0	1608	1627	1646	1660						
30.0	1558	1582	1606	1622						
33.0	1505	1533	1562	1583						
36.0	1447	1481	1516	1541						
39.0	1385	1426	1468	1496						
42.0	1321	1369	1417	1450						
45.0	1254	1310	1364	1402						
48.0	1185	1249	1310	1352						
51.0	1114	1187	1254	1301						
54.0	1042	1123	1198	1249						
57.0	969.6	1060	1141	1197						
60.0	896.8	995.9	1084	1143						
63.0	824.7	933.2	1027	1089						
66.0	753.7	870.9	970.2	1035						

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.380m [K=1.0000]
 Remarks:

Photometric Data Table [cd]

69.0	684.6	809.7	913.8	980.8
72.0	617.9	750.0	858.1	927.0
75.0	553.9	692.4	803.5	874.0
78.0	493.5	636.9	750.3	821.8
81.0	436.0	583.7	698.4	770.5
84.0	383.3	533.0	648.5	720.8
87.0	335.4	485.1	600.4	672.5
90.0	292.0	439.2	554.2	625.8
93.0	253.1	396.1	510.0	580.7
96.0	218.2	356.5	467.7	537.3
99.0	187.5	319.8	426.5	495.4
102.0	160.9	285.7	388.0	454.3
105.0	136.4	254.3	351.7	415.1
108.0	117.0	225.1	317.4	377.5
111.0	100.3	198.7	285.1	342.0
114.0	83.97	174.9	254.9	308.2
117.0	70.64	148.9	226.5	276.2
120.0	60.62	124.5	200.2	246.2
123.0	52.40	107.4	176.2	217.6
126.0	45.55	91.92	154.2	191.3
129.0	39.94	79.15	130.6	167.4
132.0	35.42	68.00	108.4	145.4
135.0	31.78	58.20	91.15	125.5
138.0	28.83	50.22	77.21	107.7
141.0	26.60	43.82	65.13	91.83
144.0	25.01	38.40	54.33	77.75
147.0	23.68	33.98	47.33	63.51
150.0	22.59	30.65	40.88	51.14
153.0	21.66	27.92	35.23	41.88
156.0	20.91	25.64	30.63	35.14
159.0	20.35	23.75	26.76	29.89
162.0	19.79	22.17	24.10	25.87
165.0	19.31	20.97	22.19	22.91
168.0	18.93	19.88	20.73	20.86
171.0	18.70	19.11	19.55	19.36
174.0	18.67	18.67	18.86	18.45
177.0	18.63	18.43	18.48	18.06
180.0	18.68	18.40	18.44	17.99

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.380m [K=1.0000]
 Remarks: